## **Author Index of Volume B17**

Agbor, N.E., 143	
Ambrazevičienė,	V., 27
Atanasov, P., 133	3
Aussenegg, F.R.,	171

Baptista, J.L., 69 Barker, P.S., 143 Bârsan, N., 241 Beeler, T.L., 247 Bousse, L., 157 Brandenburg, A., 35 Brungs, M., 215

Cha, C., 77 Chadwick, B., 215 Chen, C., 1, 7 Chen, J.R., 143 Chen, Y., 101 Choi, G.M., 175 Clark, S.R., 247

De Rooij, N.F., 157

Ebara, Y., 125 Edgar, J.A., 125 Engbersen, J.F.J., 197

Fettinger, J.C., 19 Filippov, V., 121 Fleischer, M., 187 Frishman, G., 227 Furlong, D.N., 125 Gabor, G., 227 Gal, M., 215 Galdikas, A., 27 Geddes, N.J., 125 Geistlinger, H., 47 Gombert, A., 35 Grebinskij, S., 27

Hale, Z.M., 233 Heineman, W.R., 61 Heitbaum, J., 93 Homma, T., 85

Itoh, H., 85

Joanni, E., 69 Johnson, J., 61 Jory, M.J., 203 Jun, S.T., 175

Lacquet, B.M., 41 Lampe, U., 187 Lee, H.-S., 179 Leitner, A., 171 Li, P., 109 Liu, C.-C., 165 Liu, X., 1 Lu, J., 77 Lüdi, H., 19

Manz, A., 19 Mars, P., 143 Matsuoka, H., 85 McLean, D., 149 Meixner, H., 187 Meng, G., 1 Mironas, A., 27 Miyayama, M., 221, 257 Monkman, A.P., 143 Mostarshed, S., 157

Nemoto, Y., 85

Okahata, Y., 125

Paschinger, E.M., 125 Paul, D.W., 247 Payne, F.P., 233 Petty, M.C., 143

Qian, F., 77

Ratner, V.L., 113 Rauen, K.L., 61 Reinhoudt, D.N., 197

Saito, M., 85 Sambles, J.R., 203 Saura, J., 211 Sauren, H., 149 Seguin, R., 61 Shen, Y., 1, 7 Široký, K., 13 Smith, D.A., 61 Smolenski, D.J., 179 Stauthamer, W.P.R.V., 197 Stoughton, P., 61 Sun, H.-T., 109 Swart, P.L., 41

Tan, T.C., 101 Tann, J., 215 Terentjev, A., 121 Than, K.A., 125 Traversa, E., 257 Tvardauskas, H., 27

Ushio, Y., 221

van der Schoot, B., 157 Verboom, W., 197 Vukusic, P.S., 203

Walker, L.R., 149 Wan, J.K.S., 149 Wang, S.S., 179 Widmer, H.M., 19 Wiegleb, G., 93 Wilkins, E., 133 Wu, M.-T., 109

Xie, S.L., 133 Xu, W., 1

Yakimov, S., 121 Yan, H., 165 Yanagida, H., 221, 257

Zhao, Z., 171 Zhou, Z., 77

## **Subject Index of Volume B17**

A.c. impedance technique

study on SnO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> gas-sensing system by a.c. impedance technique, 1

Amperometric oxygen electrode

towards an implantable and refillable glucose sensor based on oxygen electrode principles, 133

Amperometric sensors

combined amperometric sensors for simultaneous measurement of carbon dioxide and oxygen, 77

Antimony

gas-sensing properties of chemically deposited SnO<sub>x</sub> films doped with Pt and Sb, 27

Artificial neural networks

vapour recognition using organic films and artificial neural networks, 143

Automotive sensors

the development of in situ electrochemical oil-condition sensors, 179

Carbon dioxide

combined amperometric sensors for simultaneous measurement of carbon dioxide and oxygen, 77

Carbon monoxide sensor

a solid polymer electrolyte-based electrochemical carbon monoxide sensor, 165

Ceramic materials

CuO-doped ZnCr<sub>2</sub>O<sub>4</sub>-LiZnVO<sub>4</sub> thick-film humidity sensor, 109

Ceramics

ZnO-Li<sub>2</sub>O humidity sensors, 69

CHEMFET

influence of plasticizer on the selectivity of nitrate-sensitive CHEMFETs, 197

Chemical analysis

stacked modules for micro flow systems in chemical analysis: concept and studies using an enlarged model, 19

Chemical sensors

grating couplers as chemical sensors: a new optical configuration, 35

enhanced sensitivity of dye monolayers as chemical sensors by electrodynamic interaction with a smooth metal surface, 171

Chlorophyll fluorescence

CO<sub>2</sub> stress sensing using a tobacco leaf on the basis of chlorophyll fluorescence analysis, 85

Circuit model

a new electrical circuit model for porous dielectric humidity sensors, 41

CO

semiconductor gas sensor for detecting NO and CO traces in ambient air of road traffic, 93

CO<sub>2</sub> sensing

CO<sub>2</sub> stress sensing using a tobacco leaf on the basis of chlorophyll fluorescence analysis, 85

Contact ceramics

CO gas-sensing properties of ZnO/CuO contact ceramics, 175

Conductive polymer

humidity sensor based on conductivity measurements of a poly(dimethyldiallylammonium chloride) polymer film, 61

Copper

CO gas-sensing properties of ZnO/CuO contact ceramics,

effects of interface states on gas-sensing properties of a CuO/ZnO thin-film heterojunction, 221

gas sensitivity of ZnO/La<sub>2</sub>CuO<sub>4</sub> heterocontacts, 257

CO sensor

CO gas-sensing properties of ZnO/CuO contact ceramics, 175

Diffraction grating

development of a prototype gas sensor using surface plasmon resonance on gratings, 203

Double-layer capacitance

instrumentation for simultaneous measurement of doublelayer capacitance and solution resistance at a QCM electrode, 247

Dye monolayers

enhanced sensitivity of dye monolayers as chemical sensors by electrodynamic interaction with a smooth metal surface, 171

Electrochemical sensors

the development of in situ electrochemical oil-condition sensors, 179

Electron theory

electron theory of thin-film gas sensors, 47

Enzymic sensor

sensing characteristics of an immobilized apple powder enzymic sensor, 101

Flammable gas sensor

use of the Seebeck effect for sensing flammable gas and vapours, 13

Flow-injection-analysis systems

stacked modules for micro flow systems in chemical analysis: concept and studies using an enlarged model, 19

Fluorescent dyes

calculation of the angular distribution and waveguide capture efficiency of the light emitted by a fluorophore situated at or adsorbed to the waveguide side wall, 113

Fluorescent sensors

fluorescent sensors based on tapered single-mode optical fibres, 233

Free radicals

a portable piezoelectric detector for pulsed laser optoacoustic studies of free radicals, 149

Gallium

lambda measurement with Ga<sub>2</sub>O<sub>3</sub>, 187

Gas sensing

effects of interface states on gas-sensing properties of a CuO/ZnO thin-film heterojunction, 221

Gas sensitivity

gas sensitivity of ZnO/La<sub>2</sub>CuO<sub>4</sub> heterocontacts, 257

Gas sensors

study on SnO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> gas-sensing system by a.c. impedance technique, 1

gas sensitivity of SnO<sub>2</sub> doped with YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub>, 7

gas-sensing properties of chemically deposited SnO<sub>x</sub> films doped with Pt and Sb, 27

semiconductor gas sensor for detecting NO and CO traces in ambient air of road traffic, 93

development of a prototype gas sensor using surface plasmon resonance on gratings, 203

gas-sensing properties of  $SnO_2$  pyrolytic films subjected to ultraviolet radiation, 211

conduction models in gas-sensing SnO<sub>2</sub> layers: grain-size effects and ambient atmosphere influence, 241

Glucose sensor

towards an implantable and refillable glucose sensor based on oxygen electrode principles, 133

Grain-size effects

conduction models in gas-sensing SnO<sub>2</sub> layers: grain-size effects and ambient atmosphere influence, 241

Grating couplers

grating couplers as chemical sensors: a new optical configuration, 35

Heterocontacts

gas sensitivity of ZnO/La<sub>2</sub>CuO<sub>4</sub> heterocontacts, 257

Heterojunctions

effects of interface states on gas-sensing properties of a CuO/ZnO thin-film heterojunction, 221

Humidity sensor

humidity sensor based on conductivity measurements of a poly(dimethyldiallylammonium chloride) polymer film, 61

CuO-doped ZnCr<sub>2</sub>O<sub>4</sub>-LiZnVO<sub>4</sub> thick-film humidity sensor, 109

Humidity sensors

a new electrical circuit model for porous dielectric humidity sensors, 41

ZnO-Li<sub>2</sub>O humidity sensors, 69

Hydrogen sensor

oxygen effect on the operation of the MOS-structure-based hydrogen sensor, 121

a hydrogen sensor based on the optical generation of surface plasmons in a palladium alloy, 215

Immunosensor

piezoelectric crystal for the detection of immunoreactions in buffer solutions, 125

Iron oxide

study on SnO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> gas-sensing system by a.c. impedance technique, 1

Lambda measurement

lambda measurement with Ga<sub>2</sub>O<sub>3</sub>, 187

Lanthanum

gas sensitivity of ZnO/La<sub>2</sub>CuO<sub>4</sub> heterocontacts, 257

Lithium oxide

ZnO-Li<sub>2</sub>O humidity sensors, 69

Micromachining

stacked modules for micro flow systems in chemical analysis: concept and studies using an enlarged model, 19

MOS structure

oxygen effect on the operation of the MOS-structure-based hydrogen sensor, 121

Nitrate

influence of plasticizer on the selectivity of nitrate-sensitive CHEMFETs, 197

NO

semiconductor gas sensor for detecting NO and CO traces in ambient air of road traffic, 93

Oil-condition sensors

the development of in situ electrochemical oil-condition sensors, 179

Optical fibres.

fluorescent sensors based on tapered single-mode optical fibres, 233

Optoacoustic studies

a portable piezoelectric detector for pulsed laser optoacoustic studies of free radicals, 149

Optrodes

surface characteristics of optical chemical sensors, 227

Organic thin films

vapour recognition using organic films and artificial neural networks, 143

Oxygen

combined amperometric sensors for simultaneous measurement of carbon dioxide and oxygen, 77

oxygen effect on the operation of the MOS-structure-based hydrogen sensor, 121

Palladium

a hydrogen sensor based on the optical generation of surface plasmons in a palladium alloy, 215

pH sensor

comparison of the hysteresis of Ta<sub>2</sub>O<sub>5</sub> and Si<sub>3</sub>N<sub>4</sub> pH-sensing insulators, 157

Piezoelectric detector

a portable piezoelectric detector for pulsed laser optoacoustic studies of free radicals, 149

Plant sensors

CO<sub>2</sub> stress sensing using a tobacco leaf on the basis of chlorophyll fluorescence analysis, 85

Plant-tissue sensor

sensing characteristics of an immobilized apple powder enzymic sensor, 101

Plasticizer

influence of plasticizer on the selectivity of nitrate-sensitive CHEMFETs, 197

Platinum

gas-sensing properties of chemically deposited SnO<sub>x</sub> films doped with Pt and Sb, 27

Porous dielectric

a new electrical circuit model for porous dielectric humidity sensors, 41

Quartz-crystal microbalance

piezoelectric crystal for the detection of immunoreactions in buffer solutions, 125

instrumentation for simultaneous measurement of doublelayer capacitance and solution resistance at a QCM electrode, 247

Road traffic

semiconductor gas sensor for detecting NO and CO traces in ambient air of road traffic, 93

Seebeck effect

use of the Seebeck effect for sensing flammable gas and vapours, 13

Silicon

comparison of the hysteresis of  $Ta_2O_5$  and  $Si_3N_4$  pH-sensing insulators, 157

Solid polymer electrolyte

a solid polymer electrolyte-based electrochemical carbon monoxide sensor, 165

Solution resistance

instrumentation for simultaneous measurement of doublelayer capacitance and solution resistance at a QCM electrode, 247

Surface characteristics

surface characteristics of optical chemical sensors, 227 Surface plasmon resonance

development of a prototype gas sensor using surface plasmon resonance on gratings, 203

Surface plasmons

a hydrogen sensor based on the optical generation of surface plasmons in a palladium alloy, 215

**Tantalum** 

comparison of the hysteresis of Ta<sub>2</sub>O<sub>5</sub> and Si<sub>3</sub>N<sub>4</sub> pH-sensing insulators, 157

Thin-film gas sensors

electron theory of thin-film gas sensors, 47

Tin

gas-sensing properties of SnO<sub>2</sub> pyrolytic films subjected to ultraviolet radiation, 211

conduction models in gas-sensing SnO<sub>2</sub> layers: grain-size effects and ambient atmosphere influence, 241

Tin oxide

study on  $SnO_2$ -Fe $_2O_3$  gas-sensing system by a.c. impedance technique, 1

gas sensitivity of SnO<sub>2</sub> doped with YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub>, 7

gas-sensing properties of chemically deposited  $SnO_x$  films doped with Pt and Sb, 27

Tobacco

CO<sub>2</sub> stress sensing using a tobacco leaf on the basis of chlorophyll fluorescence analysis, 85

Ultraviolet radiation

gas-sensing properties of SnO<sub>2</sub> pyrolytic films subjected to ultraviolet radiation, 211

Vapour sensor

use of the Seebeck effect for sensing flammable gas and vapours, 13

Vapour sensors

vapour recognition using organic films and artificial neural networks, 143

Waveguides

calculation of the angular distribution and waveguide capture efficiency of the light emitted by a fluorophore situated at or adsorbed to the waveguide side wall, 113

YBCO

gas sensitivity of SnO2 doped with YBa2Cu3O7-x, 7

Zinc

CO gas-sensing properties of ZnO/CuO contact ceramics, 175

effects of interface states on gas-sensing properties of a CuO/ZnO thin-film heterojunction, 221

gas sensitivity of ZnO/La<sub>2</sub>CuO<sub>4</sub> heterocontacts, 257

Zinc oxide

ZnO-Li<sub>2</sub>O humidity sensors, 69